



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/589,945

04/22/2008

Kenneth Goransson

47113-5092-00-US

2362

55694 7590 03/26/2010  
DRINKER BIDDLE & REATH (DC)  
1500 K STREET, N.W.  
SUITE 1100  
WASHINGTON, DC 20005-1209

EXAMINER

YEE, DEBORAH

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

03/26/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/589,945	<b>Applicant(s)</b> GORANSSON ET AL.	
	<b>Examiner</b> Deborah Yee	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. The term “desired” in claim 5 is a vague and general term. If Applicant wants to patent detailed controls over the process, then they should be affirmatively recited by the claim or clearly defined in the specification.

***Claim Objections***

4. Claim 12 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.
5. Claim 12 recites “Mo is **about** 2%” which is broader than its parent claim 1 which recites “2-4 % of Mo”.
6. Line 2 of claim 15 is awkwardly recited. It is recommended to use language such as ---wherein the content of Al is higher at the surface than at the center of the alloy---.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 1793

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 to 4, 6 to 9, 12 to 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,426,084 ("Fukaya").

9. Claims 1 to 4, 6 to 9, 12 to 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,286,442 ("Uematsu") in view of US Patent 5,426,084 ("Fukaya").

10. Fukaya in claims 1 to 7 and Uematsu in claims 1 to 4, each teach a ferritic steel alloy composition having constituents whose wt% ranges overlap those recited by claims 1 to 4, 6 to 9, 12 to 14 and 17; and such overlap in wt% ranges establishes a prima facie case of obviousness because it would be obvious for one skilled in the art to select the claimed alloy wt% ranges over the broader disclosure of the prior art since the prior art teaches the same utility as a supporting material in catalytic converter applications and similar high temperature resistant properties, see MPEP 2144.05.

11. Uematsu does not teach steel composition wherein Mo is partly or entirely replaced by W as recited in claims 1 and 2. Nevertheless, it is common practice in the metallurgical art to use Mo and W interchangeably as an alloy additive in analogous steel to effectively improve high temperature proof stress and durability as a carrier structure for a catalyst, see Fukaya on lines 4 to 53 of column 10. Therefore it would be a matter of choice well within the skill of the artisan to substitute Mo with W.

12. Fukaya or Uematsu does not teach using steel in a furnace application as recited in claim 8 but such utility would be obvious since prior art exhibits the high temperature oxidation resistant properties desired and sought for said application.

Art Unit: 1793

13. Claims 1 to 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over European patent 0688882 ("EP-882") cited in Applicant's IDS filed December 27, 2006 alone or in view of US Patent 5,426,084 ("Fukaya").

14. EP-882 in claims 1 to 3 on page 11 teaches an Al-coated steel alloy made in the same manner as present invention comprising the steps of coating a substrate steel alloy with Al or an alloy of Al.

15. The substrate steel alloy of EP-882 in claims 1 to 3 has a composition with constituents whose wt% ranges overlap those recited by claims 5 and 11; and such overlap establishes a prima facie case of obviousness because it would be obvious for one skilled in the art to select the claimed alloy wt% ranges over the broader disclosure of the prior art since the prior art teaches the same utility to use in high temperature application and similar high temperature oxidation resistant properties, see MPEP 2144.05.

16. The substrate steel alloy of EP-882 is then coated with Al to produce a resultant alloy that would suggest the resultant alloy composition recited by claims 1 to 4, 6 to 9, 12 to 17 since the substrate steel alloy composition and process of making by coating with Al closely meet the recited claims and in absence of evidence to the contrary.

17. EP-882 on lines 1 to 51 on page 3 discloses using coated steel in the form of wire, strip, foil and/or tube in high temperature applications, including a support material in catalytic converter or heating equipment such as a furnace which meets claims 6 to 8.

18. EP-882 does not teach steel composition wherein Mo is partly or entirely replaced by W as recited in claims 1 and 2. Nevertheless, it is common practice in the

Art Unit: 1793

metallurgical art to use Mo and W interchangeably as an alloy additive in analogous steel to effectively improve high temperature proof stress and durability as a carrier structure for a catalyst, see Fukaya on lines 4 to 53 of column 10. Therefore it would be a matter of choice well within the skill of the artisan to substitute Mo with W.

### ***Response to Arguments***

19. Applicant's arguments filed February 5, 2010 have been fully considered but they are not persuasive.

20. It was argued that Fukaya, Uematsu and EP'882 do not teach specific examples that meet the claimed composition.

21. In response to argument, prior art teaches ferritic steel alloy composition having constituents whose wt% ranges overlap those recited by the claims. It has been well settled in many court decisions that when a claimed range of an element in a composition is either inside, overlapped or close to the range of the same element in a prior art composition and similar utility and/or properties are taught, then a prima facie case of obviousness is established since it would have been obvious to one having ordinary skill in the art to construct a composition comprising said element having a concentration selected with the disclosed range, see MPEP 2144.05.

22. Although Uematsu and EP'882 do not teach partly or entirely replacing Mo with W as recited in claims 1 and 2, such would be an obvious substitution because it is common practice to use Mo and W interchangeably since they both contribute the same effectiveness as an alloying additive for analogous steel alloy, see Fukaya on lines 4 to 53 of column 10.

***Conclusion***

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on monday-friday 6:00 am-2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Deborah Yee/  
Primary Examiner  
Art Unit 1793

/DY/